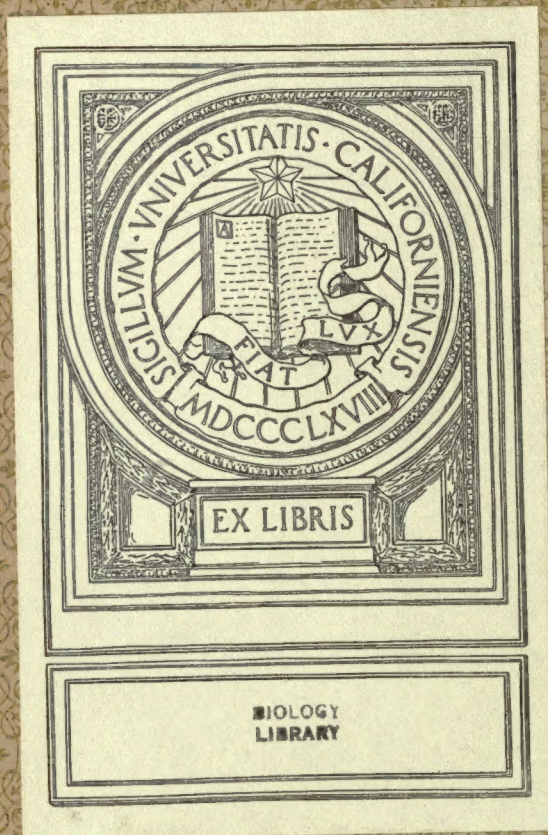


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ABBREVIATIONS

B = Bayville Me.
B.B = Buzzards Bay
Bev = Beverley Bridge
B.H. = Boston Harbor
B.L. = Beverly Ledge and Estuary
C.C. = Cape Cod
C.P. = Cambridge Ponds
C.R. = Castle Rocks, Nahant
E.P. = East Point, Nahant
G. = Gouldsborough Me.
L. = Lynn Beach and Nahant Neck
M. = Monhegan Island Me.
Mag. = Magnolia
N. = Nantasket
O. = Onset
P. = Plymouth
R. = Revere Beach
S. = Swampscott
Sq. = Squantum
W. = Wareham
W.H. = Woods Holl

PROTOZOA

Class 1 - FORAMINIFERA

? (M)

? (M)

? (Mag)

Class 2 - INFUSORIA

Vorticella sp ? (CP) (Fresh water)

MESOZOA

Volvax glabator (CP) (Fresh water)

METAZOA

PHYLUM A - PORIFERA (Sponges)

Class 1 - Calcarea

Class 2 - Non-CALCAREA

Cliona Sulphurea (DB-EP-G-M-O-R-S-W.H.

Halicondria sp ? (CR-EP-W.H.

Chalina 6culata (L-M-Mag-N-IP-S-W.H.

Microciona prolifera (DB-O.

TO THE
ASSOCIATES

PHYLUM B - COELENTERATA

Class 1 - HYDROZOA

Order 1 - Hydridae (Fresh water)

Hydra viridis (C.P.)

Hydra fusca (C.P.)

Order 2 - Hydromedusae

Sub-order A - Hydromedusae

Suborder B - Tubularia

Hydractinia polyclina (BL - CC - G - L - N - O - R - S - WH -

Parypha cracea (B - Bev - BH - R -

Corymorpha pendula (BL -

Pennaria tiarella (EP - M - WH -

Coryne mirabilis (EP -

Coryne mirabilis - medusa (B -

Clava leptostyla (B - BL - EP - G - Sq -

Eudendrium dispar (CR - EP - G - R -

Margelis carolinensis - medusa (WH -

Bougainvillia supercilioris (EP - M - WH -

Sub-order C - Campanularia

Sertularia pumila (B - BL - CR - EP - G - L - M - R - S - Sq - WH -

Sertularia argentea (G - N - R - WH -

Tima formosa (CC -

Obelia gelatinosa (Bev - BH - *Napasset Bridge -

Obelia commissuralis - medusa (WH -

Obelia commissuralis (Bev - WH -

Obelia geniculata (B - Bev - BL - G - M - Mag - N - R - S -

Campanularia flexuosa (B - Bev - BH - BL - CR - EP - G - M - Sq - WH -

Clytia poterium (BL = brought in on Laminaria - CR - EP -

Clytia bicaphora (BL = brought in on Laminaria - CR - EP - M -

Sub-order D - Trachomedusae

Sub-order E - Narcomedusae

Class 2 - SCYPHOZOA

Order 1 - Anthozoa (corals)

Suborder A - Alcyonaria

Alcyonium carnum (M)

Suborder B - Rugosa (fossil)

Sub-order C - Antipatharia (Horn corals)

Suborder D - Madreporaria (Stone corals)

Astrangia danae (W.H.)

? Cup coral - M.

Sub-order E - Actinaria (Sea anemone)

Edwardsia lineata (W.H.)

Metridium marginatum (B - Ber - CR - EP - G - M - N - R - W.H. - also

B.L. - brought in on Laminaria

Rhodactinia davisii (M.)

Bunodes stella (G-M)

Order 2 - Scyphomedusae

Aurelia flavidula (B - B.H. - BL - CC - EP - G - M - W.H.)

Cyanea arctica (B - B.H. - EP - G - M - W.H.)

Class 3 - CTENOPHORA (Comb-bearers)

Idya roseola (B)

Pleurobrachia rhododactyla (B.H.)

Bolina alata (B - G)



PHYLUM C - PLATODES (Flat worms)

Class 1 - TURBELLARIA

Planaria sp? (CP) (Fresh water)

Dendrocoelum sp? (CP) (Fresh water)

PHYLUM D - VERMES (Worms)

Class 1 - ANNULATA

Order 1 - Hirudinia (Leeches)

Hirudo medicinalis (CP) (Fresh water)

Order 2 - Chaetopoda

Spirorbis borealis (Bey-BL-CR-EP-G-L-M-N-P-R-S-WH-

Serpula dianthus (BB-O-WH-

Serpula sp? (G-O-

Amphitrite ornata (L-

Sabellaria vulgaris (WH-

Clymenella torquata (L-

Nereis pelagica (M-

Nereis sp? (M-

Nereis virens (B-G-

Autolytus cornutus (WH-surface-

Class 2 - Prosopygia (Molluscoiden)

Order 1 - Sipunculacea

Phascolosoma gouldii (WH-

Phascolosoma caementarium (M-

Order 2 - Phoronidae



Order 3 - Bryozoa

- 60. 61 *Cellepora ramulosa* (R.-
- 61. 62 *Escharella variabilis* (B.B.-O.-WH-
- 62. 63 *Membranipora pilosa* (CR.-EP-G-L-M-Mag.-O-R-S-WH-
- 63. 64 *Bugula turrita* (B.L.-CR.-M.-R)
- 64. 65 *Alcyonidium hispidum* (B.-CR.-EP-G-M-N.-R-
- 65. 66 *Alcyonidium hirsutum* (M-
- 66. 67 *Crisia eburnea* (L-M-P-R-

Order 4 - Brachiopoda

- 67. 68 *Terebratulina septentrionalis* (M-

PHYLUM E - MOLLUSCA

Class 1 - AMPHINEURA

Order 1 - Polyplacophora

- 69. 70 *Trachydermon ruber* (B.B.-EP-G-L-R-S-
- 70. 71 *Chaetopleura apiculata* (G-

Order 2 - Aplousobranchia

Class 2 - GASTROPODA

Order 1 - Streptoneura

- 72. 73 *Acmaea testudinalis* (B.-B.L.-CR.-G.-M.-Mag.-P.-R.-WH-
- 73. 74 *Acmaea testudinalis* var. *alvens* (M.-P-
- 74. 75 *Cemaria naachina* (M-
- 75. 76 *Margarita obscura* (G.-R.-S-
- 76. 77 *Margarita undulata* (G-
- 77. 78 *Margarita argentata* (R-
- 78. 79 *Margarita helicina* (G-
- 79. 80 *Margarita cinerea* (M-
- 80. 81 *Turbonilla interrupta* (Mag-
- 81. 82 *Odostomia bisuturalis* (Mag-



- 80 *Odostomia* sp.? (B.B.-
 81 *Odostomia* sp.? (L.-
 82 *Skenea planarbis* (M.-
 83 *Melanthia decisa* (W.) (Freshwater)
 84 *Rissoa aculeus* (L. R.-
 85 *Rissoa minuta* (L.-R.-
 86 *Lacuna neritoidea* (G.-
 87 *Lacuna vineta* (G.-L.-M.-Mag.-P.-R.-S.-WH-
 88 *Lacuna vineta* var. *fusca* (L.-R.-
 89 *Littorina palliata* (B.-C.R.-EP.-G.-M.-N.-O.-P.-R.-WH-
 90 *Littorina rudis* (B.-B.B.-Bex.-B.L.-C.R.-G.-L.-M.-N.-P.-R.-WH-
 91 *Littorina rudis* var. *tenebrosa* (G.-M.-P.-R.-
 92 *Littorina littorea* (B.-B.B.-Bex.-B.L.-C.R.-EP.-G.-L.-M.-Mag.-O.-P.-R.-S.-WH-
 93 *Crucibulum striatum* (M.-
 94 *Crepidula convexa* (L.-O.-P.-R.-WH-
 95 *Crepidula plana* (B.B.-L.-N.-O.-P.-R.-WH-
 96 *Crepidula fornicata* (B.B.-G.-L.-Mag.-N.-O.-P.-R.-S.-WH-
 97 *Vermetus radicola* (WH-
 98 *Bittium nigrum* (B.B.-O.-WH-
 99 *Cerithiopsis terebralis* (B.B.-O.-
 100 *Natica clausa* (M.-R.-
 101 *Neverita duplicata* (B.B.-L.-O.-P.-R.-WH-
 102 *Lunatia heros* (Bex.-G.-L.-M.-Mag.-N.-O.-P.-R.-S.-WH-
 103 *Lunatia heros* - egg collars (G.-L.-Mag.-N.-R.-WH-
 104 *Lunatia heros* var. *triseriata* (G.-L.-M.-R.-
 105 *Velutina haliotoidea* (G.-M.-
 106 *Ammauropsis helicoides* (L.-
 107 *Astyris lunata* (B.B.-Mag.-
 108 *Anachis avara* (B.B.-O.-WH-
 109 *Purpura lapillus* (B.-B.L.-C.R.-EP.-G.-L.-M.-Mag.-P.-R.-WH-
 110 *Purpura lapillus* - eggs (B.L.-C.R.-EP.-G.-M.-N.-WH-
 111 *Purpura lapillus* var. *costata* (B.L.-G.-M.-
 112 *Eupleura caudata* (O.-
 113 *Urosalpinx cinerea* (B.B.-O.-R.-WH-
 114 *Urosalpinx cinerea* - egg cases (B.B.-
 115 *Hymanassa absoleta* (B.B.-Bex.-B.L.-L.-O.-P.-R.-WH- Marblehead-
 116 *Tritia trivittata* (B.B.-B.L.-G.-L.-M.-Mag.-N.-P.-R.-S.-WH-
 117 *Nassa vibex* (B.B.-O.-



- 115. *Sycotypus canaliculatus* (B.B.-O.-W.H.-)
- Sycotypus canaliculatus* - egg cases (B.B.-O.-W.H.-)
- 116. *Fulgur carica* (B.B.-O.-W.H.-)
- Fulgur carica* - egg cases (W.H.-)
- 117. *Neptunea pygmaea* (G.-M.-)
- 118. *Neptunea curta* (L.-M.-Mag.-S.-W.H.-)
- 119. *Neptunea ventriculus* (M.-)
- 120. *Buccinum undatum* (G.-L.-M.-P.-R.-S.-W.H.-)
- Buccinum undatum* - egg cases (G.-M.-)
- 121. *Chrysodomus decemcostatus* (G.-L.-M.-R.-S.-)
- 122. *Bela decussata* (M.-)

Order 2- *Ecthyneura*

Suborder A- *Opisthobranchia*

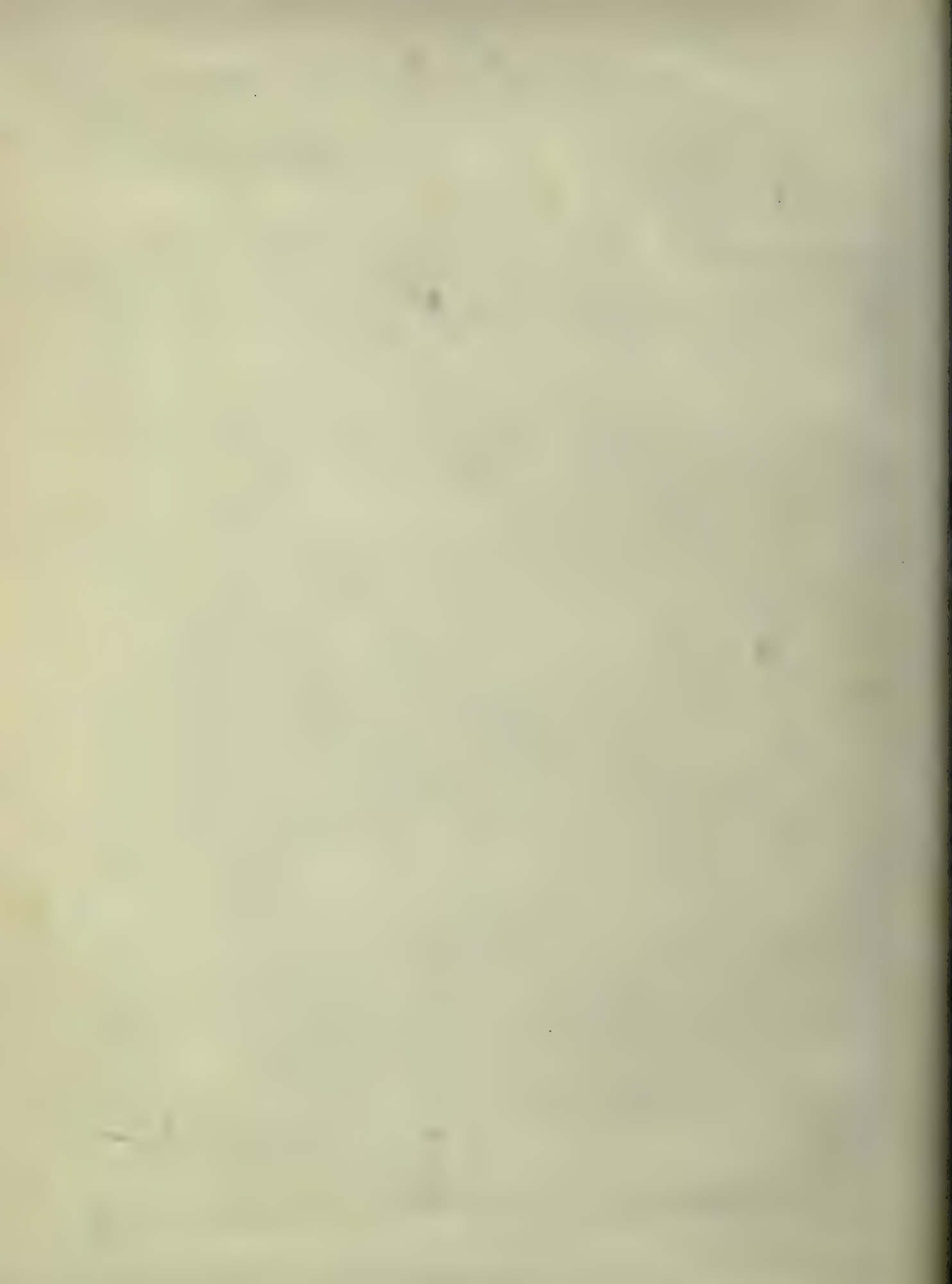
Family (a) *Tectibranchia*

Family (b) *Nudibranchia*

- 123. *Aeolis papillosa* (Bev.-E.P.-)
- 124. *Dendronotus arborescens* (E.P.-)
- 125. *Doris bifida* (Bev.-)

Sub-order B- *Pulmonata*

- 126. *Melampus bidentatus* (B.B.-L.-Mag.-O.-R.-W.H.-)
- 127. *Melampus bidentatus* var. *lineatus* (B.B.-O.-R.-)
- 128. *Planorbis* sp? (C.P.) (Fresh water)
- 129. *Physa* sp? (C.P.) (Fresh water)
- 130. *Succinea obliqua* (G.) (Terrestrial)
- 131. *Helix albolabris* (B.B.-M.-Mag.-W.H.-) (Terrestrial)
- 132. *Helix alternata* (B.B.-G.-) (Terrestrial)
- 133. *Hyalina exigua* (G.) (Terrestrial)



Class 3-PTEROPODA

Order 1-Thecosomata

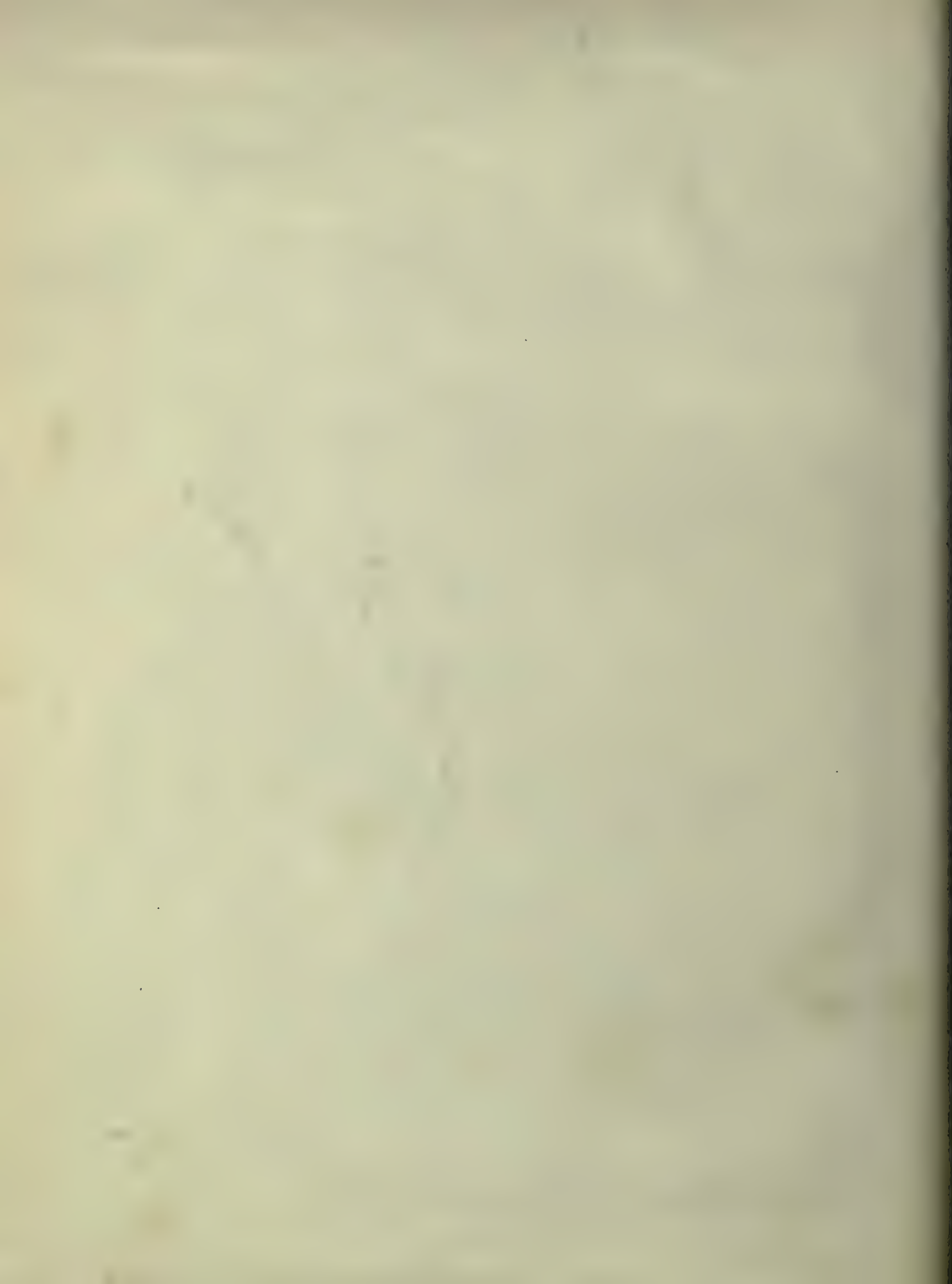
Order 2-Gymnosomata

Class 4-SCAPHOPODA

Class 5-LAMELLIBRANCHIATA

Order 1-Isomya

- 131 *Argiina pexata* (B.B-CC-O-W.H-
- 132 *Scapharca transversa* (B.B-CC-O-W.H-
- 133 *Nucula tennis* (M)
- 134 *Nucula proxima* (G-M-O-
- 135 *Leda tenuisulcata* (G-
- 136 *Leda sp?* (M)
- 137 *Yoldia sapotilla* (M-
- 138 *Yoldia timatula* (G-
- 139 *Solemya velum* (R.-W.H-
- 140 *Astarte undata* (B.B-G-M-R-W.H-
- 141 *Astarte undata* var *lutea* (M.)
- 142 *Astarte castanea* (CC-M-
- 143 *Astarte crebriacata* (M)
- 144 *Astarte sulcata* (M)
- 145 *Cyclocardia borealis* (G-M-
- 146 *Levocardium martoni* (B.B-O-W.H-
- 147 *Cardium pinnulatum* (G-M-
- 148 *Cyprina islandica* (L-M-Mag.-P-R-
- 149 *Tottenia gemma* (L-R-
- 150 *Callista convexa* (R-
- 151 *Venus mercenaria* (B.B-CC-O-R-W.H-
- 152 *Petricola pholadiformis* (L-Mag.-P-R-W.H-



- 156 15 *Macra solidissima* (L-Mag-P-R-W.H.-
 157 15 *Cerionia arcata* (C.C.-W.H.-
 158 15 *Tellina tenta* (Mag-R-W.H.-
 159 15 *Tellina tenera* (L-P-R-
 160 16 *Macoma fusca* (G-P-
 161 16 *Tagelus gibbus* (O-
 162 16 *Siliqua costata* (L-Mag-P-R-W.H.-
 163 16 *Ensatella americana* (B.B.-G.-L.-O-P-R-W.H.-
 164 16 *Thracia truncata* (M-
 165 16 *Thracia conradi* (R-L-
 166 16 *Cochlodesma leanum* (M-
 167 16 *Lyonsia hyalina* (R-W.H.-
 168 16 *Mya arenaria* (B.B.-B.L.-G.-L.-M.-Mag-O-P-R-W.H.-
 169 16 *Mya truncata* (R-
 170 17 *Saxicava arctica* (E.P.-G.-M.-Mag-W.H.-
 171 17 *Zirphaea crispata* (R-
 172 17 *Pholas truncata* (B.B.-
 173 17 *Anodon implicata* (W-
 174 17 *Unio radiatus* (W-
 175 17 *Unio nasutus* (W-
 176 17 *Unio complanatus* (W-

} Fresh water clams or
mussels.

Order 2- Heteromya

- 177 17 *Crenella glandula* (G-M-
 178 17 *Modiolaria discors* (G-
 179 17 *Modiola plicatula* (B.B.-Mag-O-P-R-W.H.-
 180 17 *Modiola modiolus* (E.P.-G.-L.-M.-N.-P-R-W.H.-
 181 17 *Mytilus edulis* (Bex.-B.L.-E.P.-G.-L.-M.-Mag-P-R-W.H.-

182 *Mytilus edulis* var. *pellucidus* (Ber. M. P.)

Order 3- *Manomya*

183 *Ostrea virginiana* (B.B.-O.-R.-W.H.)

184 *Anomia aculeata* (M.-Mag.-P.-R.-

185 *Anomia glabra* (B.B.-E.P.-G.-M.-Mag.-O.-R.-W.H.)

186 *Pecten tenuicostatus* (G.-L.-M.)

187 *Pecten irradians* (B.B.-O.-P.-W.H.)

Class 6 - CEPHALOPODA

Order 1- *Tetrabranchiata* (All extinct except one

genus - *Rutulus*)

Order 2- *Dibranchiata*

Sub-order A- *Decapoda*

188 *Loligo pealii* (C.G.-W.H.)

189 *Ommastrephes illecebrosa* (G.-M.)

190 *Ommastrephes illecebrosa* - eggs (R.-

Sub-order B- *Octopoda*

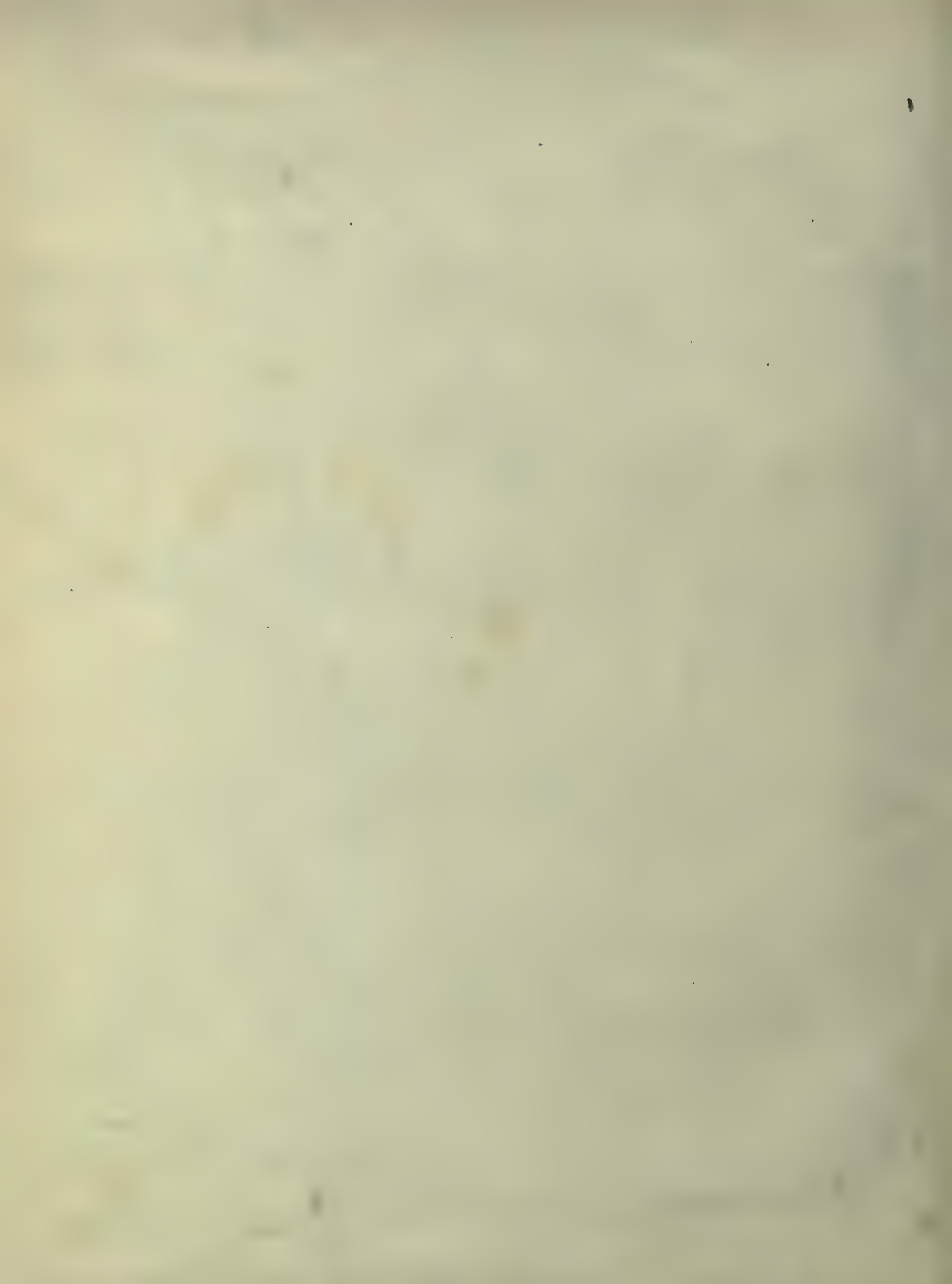
PHYLUM F - ECHINODERMATA

Class 1- *Holothuroidea* (Sea-cucumbers)

190 *Caudina arenata* (R.-

191 *Thyone briareus* (W.H.)

192 *Pentacta frandosa* (G.-M.)



Class 2- ECHINOIDEA (Sea-urchins)

- 193 *Echinarachnius parma* (B-G-M-Mag-W.H.)
 194 *Arbacia punctulata* (M-W.H.)
 195 *Strongylocentrotus drobachiensis* (Ber-BL-CR-EP-G-M-N-
 R-S-W.H.)

Class 3- ASTEROIDEA

(Star-fishes)

- 196 *Cribrella sanguinolenta* (BL-EP-M-
 197 *Asterias vulgaris* (B-Ber-BL-CR-EP-G-L-M-R-S-W.H.)
 198 *Asterias farbesii* (Ber-BL-CR-EP-L-M-
 199 *Hippasterias phrygianna* (M-
 200 *Ctenodiscus crispatus* (M-)

Class 4- OPHIUROIDEA (Brittle stars)

- 201 *Amphipholis elegans* (EP-M-
 202 *Amphipholis aculeata* (CR-EP-G-M-R-
 203 *Ophiura olivacea* (O-
 204 *Ophioglypha sarsii* (M-)

Class 5- PELMATOZOA

PHYLUM G-ARTHROPODA

SUB-PHYLUM I- BRANCHIATA

Type- Crustacea

Class I- ENTOMOSTRACA

Order 1- Phyllopoda

- 205 *Daphnia* sp.? (C.P.) (Fresh water)
 206 *Branchipus* sp.? (C.P.) (Fresh water)

Order 2- Ostracoda

Order 3- Copepoda

- 207 *Cyclops* sp.? (C.P.) (Fresh water)

Order 4 - Cirrepedia

207 *Lepas analifera* (M.-

208 *Lepas fascicularis* (M.-

209 *Balanus balanoides* (BB-Ber-B.L-C.R-E.P-G-M-N-O-Sg-W.H.

210 *Balanus crenatus* (M.-

Class 2 - MALACOSTRACA

Sub-class 1 - Leptostraca

Sub-class 2 - Orthostraca

Order 1 - Anisopoda

Order 2 - Isopoda (Vertically Flattened)

211 *Idotea phosphorea* (G.-

212 *Idotea irrora* (E.P.-G.-R.-W.H.-

213 *Idotea caeca* (R.-S.-

Order 3 - Amphipoda (laterally flattened)

214 *Caprella geometrica* (Ber.-G.-R.-W.H.-

215 *Gammarus ornatus* (G.-W.H.-

216 *Gammarus* sp.? (G.-R.-

217 *Talorchestia megalophthalma* (BB.-C.E.-

218 *Orechestia agilis* (BB.-G.-M.-R.-S.-W.H.-

Sub-Class 3 - Thoracostraca

Order 1 - Cumacea

Order 2 - Stomatopoda

Order 3 - Schizopoda

219 *Mysis stenolepis* (G.-

Order 4 - Decapoda

Sub-order A - Macrura

220 *Crangon vulgaris* (Ber.-W.H.-

221 *Homarus americanus* (BB.-M.-W.H.-

Homarus americanus - eggs (R.-W.H.-

Suborder B- Anomoura

- 212 Eupagurus longicarpus (G-M-O-P-R-W.H.)
- 213 Eupagurus bernhardus (Bex-G-L-O-R)
- 214 Eupagurus pollicaris (G-O-W.H.)
- 215 Hippa talpoida (W.H.)

Sub-order C- Brachyura

- 216 Libinia canaliculata (G-M-O-
- 217 Callinectes hastatus (O-
- 218 Platyonychus acellatus (W.H.)
- 219 Carcinus granulatus (W.H.)
- 220 Cancer irroratus (Bex-BL-EP-G-L-M-O-R-S-W.H.)
- 221 Gelasimus pugilator (B.B-O-W.H.)

Class 3- PALAEOSTRACA

Order 1 Xiphosura

- 222 Limulus polyphemus (B.B-CC-L-O-R-S-W.H.)

SUB-PHYLUM 2- TRACHEATA

Class 1- PROTOTRACHEATA

Class 2- ARACHNIDA

Class 3- MYRIOPODA

Class 4- INSECTA



PHYLUM H - TUNICATA

- 22. *Amaroecium pallidum* (E.P.-M.)
- 24. *Botryllus gouldii* (P.)
- 23. *Boltenia clavata* (M.)
- 21. *Boltenia microcasmus* (S.)
- 22. *Molgula manhattensis* (P.)
- 23. *Glandula mollis* (M.)
- 21. *Ascidia mollis* (M.)

PHYLUM I - VERTEBRATA

Class 1 - PISCES (Fishes)

Class 2 - AMPHIBIA (Amphibians)

Class 3 - REPTILIA (Reptiles)

Class 4 - AVES (Birds)

Class 5 - MAMMALIA (Mammals)

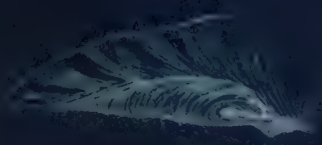
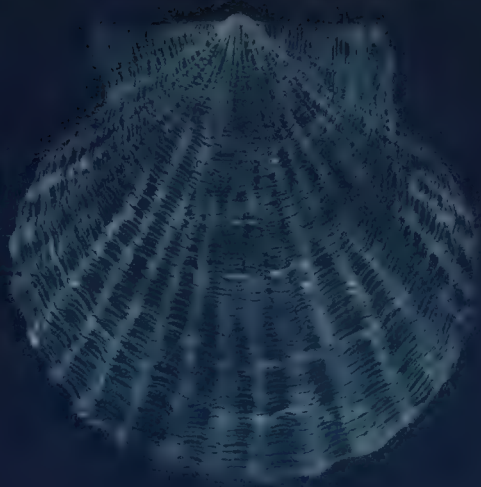




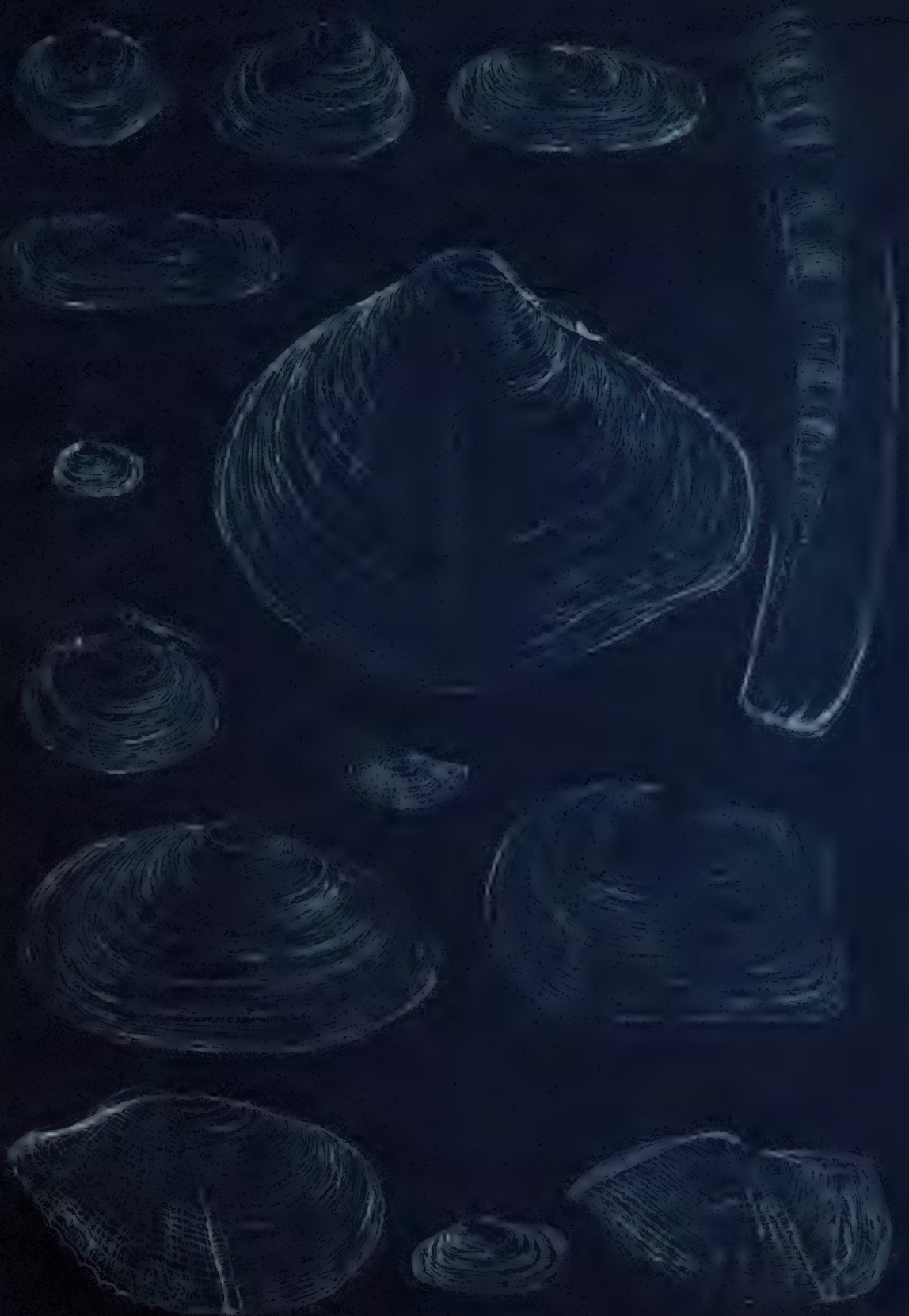


W. H. H. H.

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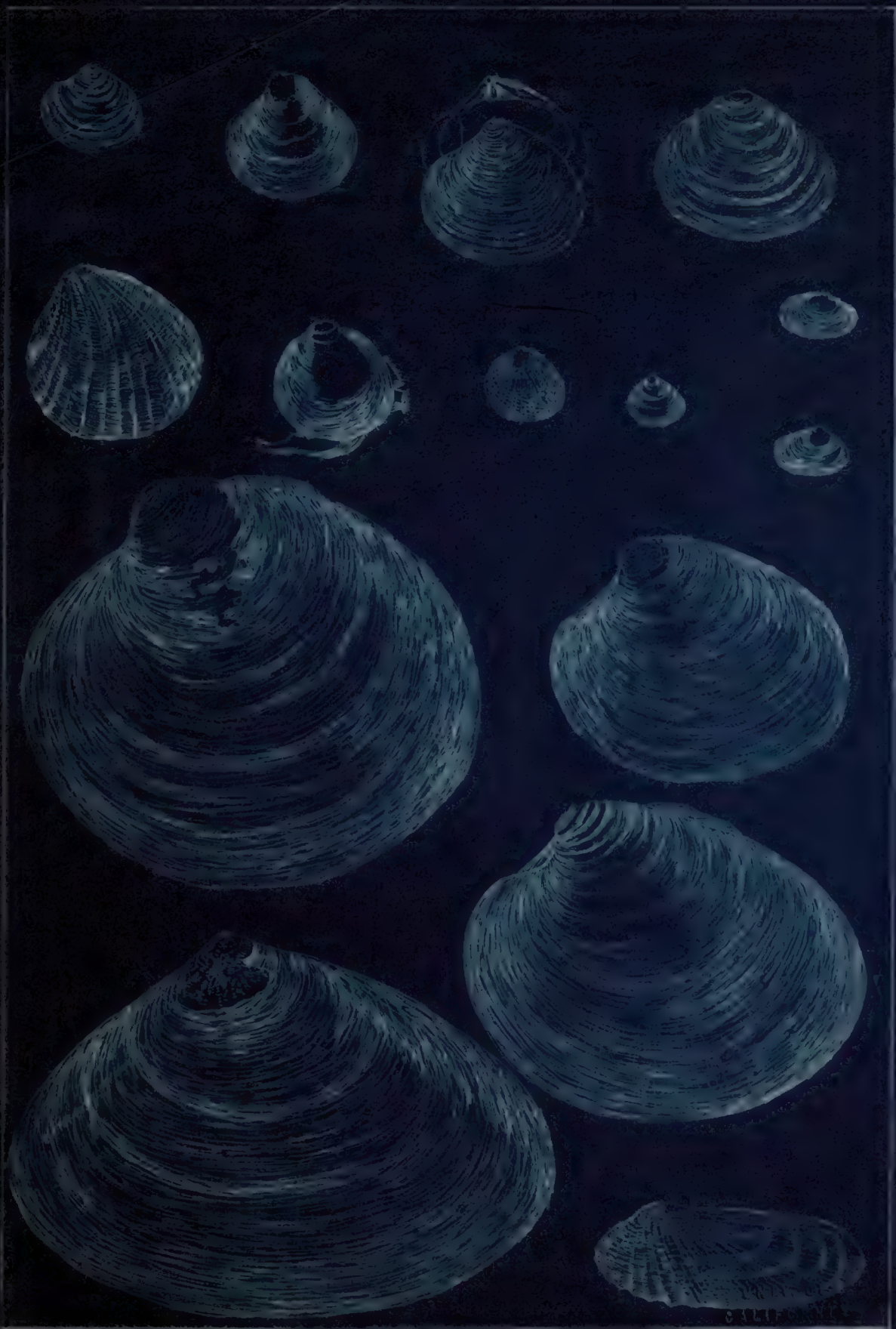


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